

NEWS BRIEFS

Mission Simulator is capable of delivering the fidelity and realism required for special conditions such as brownout. The quick response by the Army/industry team enabled our combat pilots to more adequately prepare for missions they were likely to encounter on the battlefields in Iraq," he added.

PEO, STRI provides the life-cycle management of interoperable training, testing, and simulation solutions for soldier readiness and the Defense community. The command produces a host of high-technology simulation programs for the U.S. Army and is responsible for supporting most of the Army's training systems around the world.

AWARDS

Army Technology Transfer Awards

Scientists from the U.S. Army Soldier Biological and Chemical Command's Edgewood Chemical Biological Center (ECBC) and Natick Soldier Center (NSC), both components of the U.S. Army Research, Development and Engineering Command (Provisional), received Federal Laboratory Consortium (FLC) Awards for Excellence in Technology Transfer for 2003. Winners were honored at the FLC Annual Meeting held in Tucson, AZ, this past May.

The FLC is a congressionally chartered network of federal laboratories designed to promote and strengthen technology transfer nationwide. The FLC established this annual award to recognize individuals or teams from federal laboratories and commercial sector partners who have done outstanding work in transferring technology to the commercial marketplace.

Nominations are submitted by the laboratories and are judged by a panel of technology transfer experts from industry, state and local government, academia, and the federal laboratory system.

The Army received three of the four awards won by DOD laboratories this year. Recipients of these awards and highlights of their achievements follow.

Design, Development, Training, Fielding, And Continued Consultation For Mobile Laboratories. In the event of a chemical, biological, or radiological terrorist attack, first responders, military leaders, and local and federal agencies need tools that will allow them to sample and analyze materials in a precise and uniform manner. This will enable the efficient and accurate field analysis of chemical and biological materials.

The technologies developed by the team of Monica Heyl, Charles Henry, and Dr. Dennis Reutter included turnkey capabilities that integrate and standardize field sampling as well as the analysis tools that support the users. Numerous partnerships using various technology transfer mechanisms contributed to the success of the project. Some of these partners include Purified Microenvironments, QuickSilver Analytics Inc., the FBI, and the FDA.

Both the public and private sectors have benefited from these mobile laboratory technologies. This team has provided enhanced strategies that will ultimately help to improve law enforcement efforts to protect the U.S. against terrorism and the threat of weapons of mass destruction.

Antibody Engineering For Expression In Insect Cells And Larvae. This technology addresses an advanced method for manufacturing recombinant proteins in insect cells and larvae. It consists of genes for a recombinant antibody that binds a biological warfare agent (botulinum toxin). The genes were cloned in such a way that makes it possible to produce the antibody in insect larvae. These antibodies are currently used as the recognition component of sensors that can detect biological threat agents.

Award recipients included Dr. Kevin O'Connell, Patricia Anderson, and Dr. James Valdes of ECBC and Terry Chase of Chesapeake PERL Inc. (C-PERL). By way of a Cooperative Research and Development Agreement (CRADA) between ECBC and C-PERL, C-PERL scientists are pioneering a technology that transforms insect larvae into miniature protein factories. This represents the latest attempt to manufacture biological material for use in a new generation of medicines and diagnostic tests.

The CRADA has proven successful for both parties, and the partnership has enabled C-PERL to more than double the size of its staff. Last year, the company won the Maryland Biotech/Life Sciences Incubator Company of the Year Award.

Small-Scale Cogeneration Of Heat And Electrical Power. The first practical, small-scale cogenerator, developed by the NSC team of Don Pickard and Frank Dileo, efficiently provides the energy needs of a battalion-level field kitchen. Cogenerators produce heat and electrical power from a single process that is 80 percent more efficient than separate heaters and generators. A high-temperature two-phase mixture of steam and water is injected into an expander, and an alternator coupled to the expander produces electrical power while the remaining heat is used for cooking and sanitation.

The team worked with engineers from Yankee Scientific, a company in Medfield, MA, to adapt the liquid

injection cogeneration process to field kitchens. Subsequently, Yankee Scientific and ECR International formed a joint venture called Climate Energy LLC to further develop and market the technology. In 2001, the technology was fully developed and tested with kitchen appliances and was integrated into a fully functioning kitchen in 2002.

Electric power generation using small-scale cogenerators offers significant environmental advantages and other benefits when compared to conventional power plants—less fuel is burned, the burning is cleaner, and the fuel is burned over a broader area, unlike the concentrated pollution produced by a conventional power plant.

Laboratory Director Of The Year Award. The FLC also honors those laboratory directors who have made maximum contributions to the enhancement of technology transfer in their organizations. Joseph (Jim) Zarzycki of ECBC received a 2003 Laboratory Director of the Year Award for his initiative and tireless efforts in promoting technology transfer at ECBC. This resulted in more widespread dissemination of ECBC's technologies and capabilities, the development of new business opportunities, strengthened relationships with industrial and academic partners, and increased outreach to state and local agencies.

This article was submitted by James K. Wanko, the Army Domestic Technology Transfer Program Manager at the U.S. Army Research Laboratory, Adelphi, MD.

Value Engineering Team Receives Award

DOD annually presents value engineering awards to the commands that have exceeded their savings goal by the greatest percentage. The U.S. Soldier and Biological Chemical Command's (SBCCOM's) Value Engineering (VE) Team won the 2002 Value Engineering Award, marking the second time in the past 4 years the team has achieved this distinction. SBCCOM exceeded its goal by 285 percent in 2002.

On May 22, 2003, SBCCOM Commander MG John Doesburg presented the plaque and certificate of appreciation to VE Team members Michael Ostrowsky and Kenneth Rice. He stated that SBCCOM's VE Program not only meets its goals but also continually exceeds them. He added that although the systems that SBCCOM works on are small ones, the VE Team can make monumental changes for the soldier. "At the end of the day," Doesburg said, "it's all about what's good for the soldier."

VE is a process that encourages government and industry personnel to work together to reduce development, acquisition, logistics, and sustainment costs. Sav-

ings can be generated through redesigns, modifications, changes in materials, elimination of unused or redundant parts, increased reliability or efficiency, and reduced maintenance and logistics support.

Joseph Mackoul, Office of the Product Manager, Force Sustainment Systems, joined Ostrowsky and Rice in accepting the award. Mackoul's efforts on the Barracks Replacement Heater project was the largest contributor to SBCCOM's savings, accounting for more than 50 percent of the total savings realized.

Rice said it was an honor to receive such a prestigious award. He added that it is not just the office that manages the VE program that is responsible for the savings, but also organizations such as the Integrated Materiel Management Center and the program, project, and product manager (PM) offices. "That's why we wanted to make sure we had Joe [Mackoul] here," Rice said, "to ensure the PM gets the recognition also."

Ostrowsky, VE Manager, said that his predecessor, Tony Yablonicky, can take much credit for SBCCOM getting the award, and that he would continue to work to increase the savings realized through VE.

For more information about the Soldier Systems Center and SBCCOM, go to <http://www.natick.army.mil>.

Army Civilians and Contract Partners Receive DSP Awards

The Defense Standardization Program Office (DSPO) honors individuals and organizations from military and DOD organizations who have achieved significant improvements in interoperability, cost reduction, quality, reliability, and readiness standardization. Each year during a formal awards ceremony, DSPO recognizes these outstanding performers.

Martin L. Snyder, U.S. Army Tank-automotive and Armaments Command, was the sole recipient of the 2002 Distinguished Achievement Award at the 2003 DOD Standardization Symposium. He received the award for his significant accomplishments in the development of a new, multivolt infrared-secure blackout driving lamp. Unlike previous versions, this lamp puts enough light in front of military vehicles to enable drivers to see where they are going while minimizing detection. The new lamp complies with international standardization agreements enabling interoperability with NATO forces, has an estimated life of 100,000 hours, and is a direct field replacement for all tactical and commercial vehicles configured with blackout lights. The lamps were put into production in June 2002 on the Army's Heavy Expanded Mobility Tactical Truck and other tactical wheeled vehicle systems.

AWARDS

A U.S. Army Communications-Electronics Command (CECOM) team also won a 2002 DSP Award for its accomplishments in the development and implementation of a tool to test and diagnose data buses built to MIL-STD-1553. When fully deployed, the single standardized Advanced Multiplex Test System (AMTS) will significantly reduce the logistics footprint, enhance readiness through onboard testing, and save dollars for Army and multi-service platforms. For example, the Apache Longbow pilot program demonstration projected a 6-year payoff of more than \$10 million dollars. The AMTS can apply to all electronics systems using the MIL-STD-1553 data bus on their host platforms. The CECOM-combined Logistics Readiness and Software Engineering Centers' team included Kenneth Capolongo

and Lisa Russo-German, CECOM; John Klubnick Sr. and John Lippert Sr., Aspen Consulting; and Gerard Boyan, ARINC Inc.

Additionally Bob Billmyre, U.S. Army Corps of Engineers, was recognized as a member of a joint team that developed a contract to enable service architects and engineers Internet access to nongovernment standards (NGS). These standards are established by organizations such as the American Society for Testing and Materials and the American Society of Heating, Refrigerating, and Air-Conditioning Engineers. Ready access to NGS allows up-to-date technology to be applied, increases productivity, and results in reduced construction and engineering costs.

CONFERENCES

2003 SMART Conference

The U.S. Army Tank Automotive Research, Development and Engineering Center, Warren, MI, and the Army Model and Simulation Office, Arlington, VA, will co-sponsor the 2003 Simulation and Modeling for Acquisition, Requirements and Training (SMART) Conference Sept. 8-11, 2003, at the Hyatt Regency, Dearborn, MI. The theme of the Army's premier modeling and simulation (M&S) conference is "Learning From Our Future Combat Systems (FCS) Experiences: Synthesizing a Cross-Domain SMART Approach to the Objective Force." The goal is to sharpen the focus of military, civilian, and industry modeling and simulation professionals in using M&S technologies to further Army transformation. The conference objective is to establish an environment where key lessons learned from FCS Milestone B experiences can be studied and applied to the System Development and Demonstration (SDD) and to subsequent fielding of the Objective Force systems key to Army transformation.

Conference highlights will include guest speakers from the Big Three automakers (General Motors Corp., Ford Motor Co., and DaimlerChrysler) and new Army leadership who will facilitate discussion and analysis of FCS lessons learned to date and the way ahead for the SDD. Tours of local M&S facilities and area technology and manufacturing centers as well as a reception at the world-renowned Henry Ford Museum will be highlights of the conference. The annual SMART Awards Banquet is scheduled for Sept. 10 and will feature thought-provoking guest speaker Ray Kurzweil, inventor of the Kurzweil Reading Machine for the blind and noted author of "The Age of Spiritual Machines—When Computers Exceed Human Intelligence."

For additional information, visit the Web site at:
<http://conference.brtrc.com/2003Smart/info/default.aspx>.